CHAPTER I
INTRODUCTION

A. Background of the Study

In this modern digital era, many people have habits of minimalist living; they tend to choose the easiest and simplest way to ease their lives. One of the examples of their minimalist living related to translation is to translate by using machine translation (hereinafter referred to as MT). MT's purpose is to enable a computer software to translate (transfer and process) natural language in lexical, syntactic, and semantic fields (Vauquois, 1998 in (Lin & Chien, 2009, p. 134). Moreover, Vauqois (1998, in Lin & Chien, 2009, p. 134) added that MT productions for written or spoken language in the original texts to another language, including explicit and implicit meanings could be perceived working effectively.

MT is believed to be practical, simple to use, and efficient. Due to the practicality, simplicity, and efficiency offered by MT, MT becomes a shortcut for many people to overcome their language barrier in the communication process and to make the use of technology to ease them when processing language translation. People use MT for various reasons: casual conversation, the understanding topic of reading, looking for idioms in the target language, and many more.

As of today, there are plenty of choices of open-source or paid MT software offered. Take, for example, Google Translate and Bing Translate are instances of widely used MT all around the world. Both of these products are developed and owned by two giant tech companies, Google and Microsoft respectively. People use both of them since they are easy and simple to use, available online so people can access it anytime and anywhere they want, and they are free to use.

People agree that MT is practical, easy, and simple to use, and available online, however, what about its accuracy? Hutchins and Somers (1992) stated that major obstacles of MT lie in the linguistic aspect, not computational. The linguistic aspects mentioned are lexical ambiguity of syntactic complexity, vocabulary differences between languages, elliptical and ungrammatical

constructions, extracting the meaning of sentences and text (Hutchins and Somers, 1992: 2). MT must deal with linguistic phenomena, complexities of terminology, misspellings, neologisms, and aspects of performance.

To draw insight into the phenomena found in MT translation, Maučec and Donaj (2019, p. 6) reported that "machine translation approaches are not equally successful for all language pairs". Further, they stated that the problematic MT translation was morphologically rich languages. Specifically, if the source language is less complex morphologically to more complex morphologically target language (Maučec & Donaj, 2019). This will of course affect the result of the translation done by the MT.

Another report on MT translation phenomena comes from Almahasees (2018). In his study, he reported that MT, in this case, Google Translate and *Bing Translator*, produced major linguistic errors that inhibit the comprehension of the text: lexical and grammatical collocations. This drawback may also affect the overall quality of MT translation.

Ahmad (2016) also conducted a study on how Google Translate and *Bing Translator* perform when translating scientific academic texts. He found that Google Translate's translation in terms of accuracy is higher by 10.1%; Google Translate's was 58.8% and *Bing Translator*'s was 48.7%. When it comes to readability, Google Translate was still better with 48%, while *Bing Translator* was 45%. Google Translate scored 46.6% while *Bing Translator* was 35% in the acceptabilitytest.

Another phenomenon was reported by Ulfah (2015) who focused her study on the performance of Google Translate. Similar to Ahmad, Ulfah also used scientific academic text as the data. She also employed equivalence at the word level, equivalence above world level, grammatical equivalence, textual equivalence: thematic and information structures, and textual equivalence: cohesion which was Baker (1992). The finding suggested that that Google Translate failed to make a single correct sentence when it comes to compound sentence and compound complex sentence translation. While the highest percentage of successful translation was simple academic sentences (Ulfah, 2015). A conclusion could be drawn that Google Translate found difficulty

translating complex sentences written in an academic context.

Ariani conducted her research in order to examine and observe the errors present in Google Translate and *Bing Translator* translation products. Her finding suggests that Google Translate produced lesser errors than *Bing Translator* did. Therefore, she concluded that Google Translate was better in transferring the semantic concepts and its relation to oneanother.

Machine translation phenomena mostly lie on the complexity of a language: morphology, collocations, and other linguistics features, especially those involving meaning. It is believed that the problem is not in the computation level, rather in linguistic level (Huthcin & Somers, 1992).

Another to consider is Both Google Translate and *Bing Translator* are statistical-based machine translator. It means that they translation is based on statistical models. To name a few, those models are word-based model, phrase-based model, and language model (Koehn, 2010). Since it is a statistical based translation, MT may encounter problem when it deals with culturaltranslation.

These mentioned phenomenons mean that machine translators are not perfect yet as tools of translation. This is a trigger to do another research on the machine translator's translation error. To make it more accurate and interrelated, it is good that the text to be translated has been translated manually earlier. In this case, *The Outcast* is suitable to be the object of this research since it is an English-translated novel from Indonesian version entitled Maryam. By translating this English-translated novel into Indonesia, it can show how the translation result using *Bing Translator*. The translation can be evaluated in two ways. The first one is by analyzing it manually and the second one is by comparing the result of the translation with the Indonesian version of the novel.

From a few reported phenomena above, hence, the author is motivated to put the quality of MT result under analysis. This is to provide insight into how reliable MT is, how efficient it is, and how it deals with translation errors. To conduct the present study, the author tests one of the above mentioned MTs, namely Microsoft's *Bing Translator* by translating excerpt in a novel entitled *The Outcast*. *The Outcast* is an English translation from Indonesian novel entitled *Maryam* by Okky Madasari, and translated into English by Nurhayat

and Makna Sinatria. The author attempts to translate excerpt from the novel into Indonesian as the target language. Related to that, *The Outcast* is one of Okky's novel that was translated into English (Cahyaningsih, 2015). For that reason, using the concept of back-translation (Shigenbou, 2007), the accuracy of the translation using *Bing Translator* into Indonesian can be confirmed through the original novel that is written in Indonesian.

B. Problem Statement

The MT phenomena above inspired the author to formulate a problem statement. As the focus of the study is to obtain insight into *Bing Translator*, the problems of the study are formulated as follows.

1. What are the types of error found in Indonesian back translation of *The Outcast* using *Bing Translator*?
2. How is the back translation quality of *The Outcast* novel using *Bing Translator*?

C. Objective of the Study

The author of the present study conducted the study in order to fulfill an objective. Following are the objectives of the present study:

1. To classify the types of error found in Indonesian back translation of *The Outcast* using *Bing Translator*.
2. To describe the back translation quality of *The Outcast* novel using *Bing Translator*.

D. Benefit of the Study

This study is expected to provide some benefits to the community. For linguists, the present study could provide more insight into MTs in how it deals with linguistic features or field, how it relates to linguistic phenomena, and how it could be used to help linguist conduct research on linguistic perspective of MT. The present study could also be used as a reference by software programmer/developer to improve the MTs.

By providing errors categorization, the present study is expected to be able

to provide insight for those who are working with machine translator development (developers, linguists, and others) for the improvement. The quality derived from the present study analysis will also be beneficial for people using MT, in this case *Bing Translator* in terms of how *Bing Translator* behaves and what result people should expect fromit.